IMPROVEMENT OF SHINGLE TEAR STRENGTH WITH FIBER MIXTURE OF DIFFERENT FIBERS

DESCRIPTION

Related Applications

This application is a continuation-in-part application of U.S. Serial No. 09/759,043, now USPN 6,544,911 filed January 12, 2001, which is a continuation-in-part application of U.S. Serial No. 09/484,749, filed January 18, 2000, the entire contents of each of which are incorporated herein by reference.

Field of the Invention

The present invention relates to a cured, siloxane-containing non-woven fiber mat having fibers of different lengths that can be suitably employed as a roofing or other building composite requiring improved tear strength.

Background of the Invention

In the building composite industry, various methods have been developed in an attempt to improve the mat strength and stability of non-woven fiberous mats. Many efforts are focused on modifying the binder systems. The following patents and publications are representative of such endeavors:

U.S. Patent No. 4,335,186 discloses a chemically modified asphalt composition where the asphalt is reacted with a nitrogen-containing organic compound which is capable of introducing to the asphalt functional groups that can serve as reactive sites to establish a secure chemical bond between the asphalt and reinforcing fillers, blended into the asphalt, such as glass fibers and siliceous aggregates.

U.S. Patent No. 4,430,465 relates to an article of manufacturing comprising mat fibers, such as glass fibers, that are coated with a composition comprising asphalt, an alkadiene-vinylarene copolymer, a petroleum hydrocarbon resin and a branched organic amine which is employed as an anti-stripping agent.

U.S. Patent No. 5,518,586 provides a method of making a glass fiber mat comprising dispersing glass fibers in an aqueous medium containing hydroxyethyl